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SHORT COMMUNICATION

Use of *Hirudo medicinalis* by maxillofacial surgical units in the United Kingdom: current views and practice

J. Rao,* I. S. Whitaker†

*Senior House Officer in Oral and Maxillofacial Surgery, South Manchester University Hospitals NHS Trust, Manchester, UK; †Department of Anatomy, University of Cambridge, Cambridge, UK

INTRODUCTION

The medicinal leech, *Hirudo medicinalis*, has been used with increasing frequency during the past few years for salvage of compromised pedicled flaps and microvascular free-tissue transfers.[1] Peer-reviewed evidence suggests that the survival of compromised, venous-congested flaps is improved by early application of a leech.[2–4] The therapeutic use of leeches in medicine dates back to 50 BC and was cited by ancient authors.[3] The use of *Hirudo medicinalis* was so common in Europe between 1825 and 1850 that supplies were exhausted. It then fell into disfavour until the second half of the twentieth century after the elucidation of the physiological properties that could relieve venous congestion after reconstructive surgery. The first medicinal leech farm was set up in Swansea in the 1970s and Biopharm now supplies leeches to hospitals all over the world (Fig. 1).

In this study we have investigated the current extent of use of leeches in Maxillofacial units throughout the United Kingdom.

METHODS

A postal questionnaire was sent to each of the 269 consultants in the register of the British Association of Oral and Maxillofacial Surgeons. The questionnaires were posted in July 1999 with a brief covering letter and a free-post reply envelope to ensure a good response. The questionnaire was as follows:

1. Are leeches used by your operating team? If not, would you consider using them?
2. How many times has your team used leeches?
3. Do you use antibiotics routinely postoperatively?
4. Do you disinfect and isolate sites?
5. Do you routinely counsel patients and relatives?
6. Did any patients refuse treatment with leeches?
7. Were there written or verbal protocols for the use of leeches?

RESULTS

The response rate was reasonable, 138 (51%) completed questionnaires having been returned by the end of September.

Of the 138 consultants who replied, 44 (32%) used leeches postoperatively and the remaining 94 (68%) did not.

Of the consultants who did not use leeches, 51 (54%) said they would consider using them and 43 (46%) said they would not.

The remaining questions were relevant to the 44 consultants who had used leeches. Antibiotics were always used as prophylaxis by 5 (11%), sometimes by 2 (5%), and never by 37 (84%).

The sites of application were always disinfected by 19 (43%), sometimes by 7 (16%), and never by 18 (41%).

Patients were always counselled by 20 (45%) of the consultants, sometimes by 7 (18%), and never by 21 (48%).

Treatment with leeches was well accepted, with 42 (95%) of patients being happy to go ahead with treatment, and 2 (5%) refusing to allow their use. Written protocols were not drawn up by 42 (95%) and 2 (5%) had written a protocol.

DISCUSSION

We found that about one third of the oral and maxillofacial surgeons in the United Kingdom who replied to the questionnaire used leeches. Although less than half the patients were counselled routinely, the use of leeches

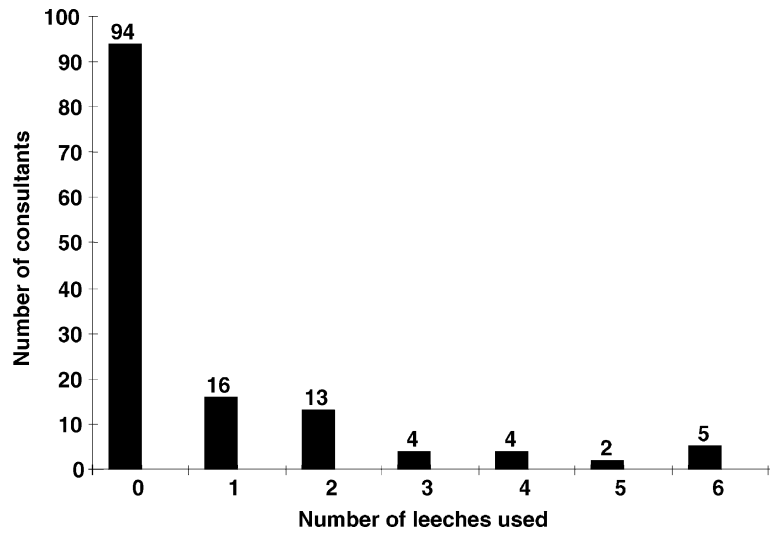

Fig. 1 Use of leeches by 138 consultants.

was well received by virtually all. Written protocols were rarely constructed and no national guidelines on the use of leeches are available.

A recent cost analysis shows that, for a unit to use leeches, the hospital pharmacy must buy a storage tank and medium in addition to the leeches. Biopharm provides leech tubs at £2.95 and a cheap storage medium. Leeches themselves vary in cost, dependent upon the number ordered and at most cost £9.95 each. Call out charges amount to £60–75 plus additional distribution and handling costs.

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The Authors

J. Rao BChD
Senior House Officer in Oral and Maxillofacial Surgery
South Manchester University Hospitals NHS Trust, Manchester, UK
I. S. Whitaker MA, MB, BChir, Cantab
Demonstrator in Anatomy
Department of Anatomy, University of Cambridge, Cambridge, UK

Correspondence and requests for offprints to: Dr I. S. Whitaker MA, MB, BChir, Cantab, 8 Avonlea Road, Sale, Cheshire M33 4HZ, UK. Tel: +44 (0) 161 9627563; E-mail: iain_whitaker@yahoo.com

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